

## CLAIMS

1. A composite material comprising a mixture of:

a. papermaking sludge in granulated form; and

b. a polymer composition comprising a synthetic polymer resin.

2. The material of claim 1 wherein the sludge comprises at least 5% by weight of the mixture.

3. The material of claim 1 wherein the sludge comprises at least 20% by weight of the mixture.

4. The material of claim 1 wherein the sludge comprises at least 50% by weight of the mixture.

5. The material of claim 1 wherein the sludge comprises at least 70% by weight of the mixture.

6. The material of claim 1 wherein the sludge is highly porous.

7. The material of claim 1 wherein the polymer composition is a plastic.

8. The material of claim 7 wherein the plastic comprises at least one of high-density polyethylene, low-density polyethylene, polypropylene, polyvinyl chloride, and nylon.

9. The material of claim 1 wherein the mixture is amenable to processing by at least one of extrusion, injection molding, and compression molding.

10. The material of claim 1 further comprising cellulose fibers.

11. The material of claim 10 wherein the cellulose fibers are in the form of rice hulls.

12. A method of making a composite material, the method comprising the steps of:

a. combining papermaking sludge in granulated form with a polymer composition comprising a synthetic polymer resin; and

b. extruding, injection molding, or compression molding the mixture.

13. The method of claim 12 wherein the sludge comprises at least 5% by weight of the mixture.

14. The method of claim 12 wherein the sludge comprises at least 20% by weight of the mixture.

15. The method of claim 12 wherein the sludge comprises at least 50% by weight of the mixture.

3

1 16. The method of claim 12 wherein the sludge comprises at least 70% by weight of the  
2 mixture.

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1 17. The method of claim 12 wherein the sludge is highly porous.

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1 18. The method of claim 12 wherein the polymer composition is a plastic.

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1 19. The method of claim 18 wherein the plastic comprises at least one of high-density  
2 polyethylene, low-density polyethylene, polypropylene, polyvinyl chloride, and nylon.

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1 20. The method of claim 1 wherein the combining step further comprising adding  
2 cellulose fibers to the sludge and polymer composition.

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1 21. The method of claim 20 wherein the cellulose fibers are in the form of rice hulls.

2